

ABSTRACT OF THE DISCLOSURE

Systematic methods to detect, verify, and repair a collinear model are presented. After detecting collinearity in a model or subsets of a model, a directional test is carried out to verify if the collinearity is real. The model can then be adjusted in either

5 direction to making a near collinear model exactly collinear or less collinear, subject to model uncertainty bounds or other linear constraints. When doing the model adjustment, deviations from the original model are minimized and the directionality of the model is kept unchanged.